

Remarks and Arguments

Claims 2-8 and 12-17 were presented for examination. Claim 17 has been amended.

Applicant's attorney would like to thank the examiner for his time in an informal telephone call in which the finality of the office action was discussed and it was concluded that the office action mailed February 15, 2008 was a non-final office action. In addition, a proposed modification of claim 17 was discussed and compared to Figures 1-3 of the drawings. The proposed modifications are incorporated into the claim set above.

Claims 2-8 and 12-17 were rejected under 35 U.S.C. §112, second paragraph because claim 17 recited a screw head having an underside with a recess in the form of a negative cone with a cone base. The examiner indicated that the term "negative cone" was indefinite and it was unclear how a negative cone could have a positive cone base.

In response, claim 17 has been amended to delete the term "negative cone." Amended claim 17 now recites, in lines 10-13, "...connecting screw has a head, the underside of which has a conical recess with a surface having a widest part facing toward the implant body when the connecting screw is in place ..." As discussed with the examiner, this wording is now clear and definite as required by 35 U.S.C. §112, second paragraph. The remainder of claims 2-8 and 12-16 were rejected for their dependence on claim 17.

Claim 2-6 and 17 were rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 6,287,115 (Lustig, previously cited.) The examiner points to Figure 15 of the Lustig patent as disclosing the arrangement claimed in claim 17.

A comparison of Lustig, Figure 15, with Figure 3 of the present invention illustrates that both dental implants have connecting screws with conical portions that mate with corresponding conical portions in the implant top section. However, in the present invention, the screw head has a conical recess of which the widest part faces the dental implant (claim 17, lines 10-13). The surface of this recess mates with a truncated cone that extends upward from the bottom of the implant top section where the base of the cone also faces the implant body (claims 17, lines 5-7 and 13-15).

Since the screw head moves toward the implant body when the screw is tightened, this arrangement causes the screw head to compress the truncated cone towards the screw shaft when the screw is tightened.

In Lustig, instead of a conical recess as recited, the screw has a conical outer surface and the widest parts of the respective conical surfaces face away from the implant body rather than towards the implant body as recited. Therefore, when the screw head moves toward the implant body when the screw is tightened, the conical surface on the underside to the screw head cooperates with the conical surface in the implant top portion to produce a pressure component which is directed outwards. Since the implant top portion is typically made from a brittle material, this outward pressure frequently produces cracks in the implant top portion. Therefore, new claim 17 patentably distinguishes over the cited Lustig reference.

Claims 2-6 are dependent, either directly or indirectly, on claim 1 and incorporate the limitations thereof. Therefore, they distinguish over the Lustig reference in the same manner as claim 1.

Claims 7, 8 and 12-14 have been rejected as obvious over Lustig in view of U.S. Patent No. 4,793,808 (Kirsh, previously cited.) As discussed in the response to the previous office communication mailed on December 6, 2007, neither Lustig nor Kirsh discloses a connecting screw with a conical recess in the underside of the screw head which recess contacts a truncated cone in the abutment as recited in claim 17. Claims 7, 8 and 12-14 are dependent on claim 17 and incorporate the limitations thereof. Therefore, they distinguish over the combination of the Lustig and Kirsh references in the same manner as claim 17 distinguishes over the Lustig reference as discussed above.

Claims 15 and 16 have been rejected as obvious over Lustig in view of U.S. Kirsh and further in view of U.S. Patent Publication No. 2003/0068599 (Balfour, previously cited.) The Balfour reference discloses a dental implant which has an esthetic coronal profile head disposed between a threaded base part and attachment post. The profile of this head is bell shaped. However, the Balfour reference does not a connecting screw with a conical recess in the underside of the screw head which recess contacts a truncated cone in the abutment as recited in claim 17. Thus, its combination

with Lustig and Kirsh cannot teach the elements recited in claim 17 on which claims 15 and 16 depend. Consequently, claims 15 and 16 patentably distinguish over the cited reference combination.

In light of the forgoing amendments and remarks, this application is now believed in condition for allowance and a notice of allowance is earnestly solicited. If the examiner has any further questions regarding this amendment, he is invited to call applicants' attorney at the number listed below. The examiner is hereby authorized to charge any fees or direct any payment under 37 C.F.R. §§1.17, 1.16 to Deposit Account number 50-3969.

Respectfully submitted

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